

First-Order Logic Foundation of Relativity Theories

X. Madarasz, Judit and Nemeti, Istvan and Szekely, Gergely (2006) First-Order Logic Foundation of Relativity Theories.

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Abstract

Motivation and perspective for an exciting new research direction interconnecting logic, spacetime theory, relativity--including such revolutionary areas as black hole physics, relativistic computers, new cosmology--are presented in this paper. We would like to invite the logician reader to take part in this grand enterprise of the new century. Besides general perspective and motivation, we present initial results in this direction.

Keywords: general relativity, gravitational time dilation, first-order logic, axiomatization, foundation of relativity theory

Subjects: [Specific Sciences: Physics: Relativity Theory](#)

ID Code: 2726

Deposited By: [Székely, Gergely](#)

Deposited On: 09 May 2006

Additional Information: In: New Logics for the XXIst Century II, Mathematical Problems from Applied Logics, International Mathematical Series Vol 5, Springer, (2006)